COORDINATION MEETING OF THE AFI SATELLITE NETWORK (AFISNET)

(ACCRA, GHANA, 17-19 AUGUST 2022)

FINAL REPORT

1.   **INTRODUCTION**

1.1   **Attendance**

At the kind invitation of the Ghana Civil Aviation Authority, a Coordination meeting of the AFI Satellite Network (**AFISNET**) was held from 17th to 19th August 2021 in the Ghana Civil Aviation Training Academy (**GATA**).

The meeting recorded the attendance by delegates from ASECNA, GCAA, NAMA and the Roberts FIR.

The list of participants is attached as per **Appendix A**.

1.2   **Opening ceremony**

Mrs. **Joyce Asante**, Director Air Traffic Safety Engineering GCAA, welcomed the meeting. In her opening remarks she states that the AFISNET has greatly enhanced the dissemination of flight-related data within the Western and Central African sub-region contributing to significantly improve Air Navigation Safety in the AFI Region.

She furthermore noted that the AFISNET Network has been maintained and expanded by the efforts and innovation of Technicians and Engineers within the AFI region through technical collaboration and exchange of programs.

She also recalled the negative impact of the COVID-19 Pandemic that prevented the holding of the SNMC in person meetings since SNMC/27 held in Accra, Ghana from 25 to 29 November 2019 and warmly welcomed the participants.

Ing. **Charles Kraikue**, Director-General Ghana Civil Aviation Authority in his address, welcomed the meeting on behalf of the Chairman and Board of GCAA. He reminded to the attention of the participants that significant work has been done by the SNMC members, comprising ASECNA, GCAA, NAMA, and Roberts FIR, for the re-engineer of the network since 2012.

He reiterated GCAA Commitment to ensuring safety, through the provision of services with the network and GCAA will provide the necessary technical expertise and funding when the need arises.

He outlined his expectation that the deliberations of the meeting would lead to useful conclusions and decisions that will go a long way to improving efficiency and effectiveness in the Aeronautical systems supported by the AFISNET network, and duly opened the meeting

1.3   **Officers and Secretariat**

The meeting appointed **Mrs. Joyce Asante**, Director Air Traffic Safety Engineering as Chairperson.

Mr. **François-Xavier SALAMBANGA** Regional Officer CNS, ICAO WACAF Office was appointed as Secretariat of the meeting.

1.4   **Working language**

The meeting was conducted in the English language.

2. **Report on Agenda items**

Agenda Item 1: Impact of the COVID-19 Pandemic on the Performance of AFISNET

Under this agenda item the Secretariat presented to the meeting (**PPT/01**) a summary on the impact of the COVID-19 Pandemic on the air transport industry with focus on AFISNET. In this regard, AFISNET National & Regional projects were postponed as well as SNMC in person meetings and technical coordination initiatives, with impact on implementation of AFISNET related projects.

ANSPS provided an update of the impact of the Pandemic on their operation and mitigation actions taken so far to ensure the continuity of service.

In this regard, GCAA (**WP/03B** and **PPT02**) presented the challenges encountered with the Pandemic such as loss of revenue, and the lessons learnt including but not limited to working from home, virtual meetings, training, Factory Acceptance Test (**FAT**) etc.…

The Roberts FIR reported (**PPT03**) on the impact of the pandemic resulting in drastic drop in traffic volume to about 75% and drastic drop in revenue 85% due to inability of airlines to pay their outstanding bills/charges owed to Roberts FIR.

The meeting therefore agreed that the severe impact of the pandemic on AFISNET affected many aspects amongst which the following:

- **Planning**: attention and efforts focused on developing and implementing contingency plans to ensure minimum operation resulting in poor investment planning;
- **Implementation**: shortage of revenue leading to postponement of investment plans;
- **Operation and Maintenance**: restricted to minimum;
- **Monitoring and Reporting**: severely shortened;
- **Human resource capacity Building** process stopped.

The meeting agreed to, fully restart and increase SNMC coordination activities through the regular holding of SNMC yearly meetings and to relaunch the conduct of identified projects postponed during the COVID-19 Pandemic. NAMA was tasked to convene in coordination with the Secretariat, the next 28th SNMC Meeting not later than the first quarter 2023.

The meeting also, tasked ASECNA to coordinate the update of the estimated cost of the AFISNET re-engineering document not later than 31st August 2022 and bring to the attention of the AFISNET Board the funding challenges for the modernization of AFINSNET.

The following Recommendation was formulated:

Recommendation Coord.2022/1: *Restart and continuation of SNMC activities*

That;

In order to maintain and improve the performance of the network:

a) **AFISNET core members endeavor to fully restart and increase SNMC coordination activities through the regular holding of SNMC yearly coordination meetings and the relaunch of the conduct of identified projects postponed during the COVID-19 Pandemic. NAMA, in coordination with the Secretariat, convene the 28th SNMC Meeting not later than the first quarter 2023.**

b) **In so doing they will, under the coordination of ASECNA, update the estimated cost of the AFISNET re-engineering document not later than 31st August 2022, and bring to the attention of the AFISNET Board the funding challenges for the modernization of AFINSNET**

Agenda Item 2: Actions taken for the implementation of the Conclusions/Decisions of SNMC previous meetings

Under this agenda item the Secretariat provided the meeting (**WP/02**) with the actions taken for the implementation of the Conclusions/Decisions of SNMC previous meetings.

The Secretariat reminded the meeting that the final report of the last SNMC/27 meeting was developed circulated, finalized, and posted at: https://www.icao.int/WACAF/Pages/SNMC-26.aspx. Members were invited to update the table of Conclusions and Decision of the meeting.

[2]The meeting focused its attention on the need for an harmonized establishment of Cyber Security and resilience of AFISNET. ASECNA informed the meeting on the template for cyber security guide and cyber threat assessment for AFISNET. The meeting recalled the ongoing initiatives conducted by the COM Project 5 of the APIRG IIM/SG Sub Group and agreed that ASECNA should liaise with the COM Project 5 Team Coordinator in order to ensure that the AFISNET Cyber security implementation template is aligned with the AFI regional related policy.

The following recommendation was formulated:

Recommendation Coord.2022/2: *Cyber Security and resilience of AFISNET*

That;
When reviewing the technical specification of the project document for AFISNET Re-engineering, the AFISNET Joint Technical Team (JTE) consider and include the requirements on cyber security and resilience assessment in line with the ICAO Provision and taking benefit from bests practices from the industry. In this regard, ASECNA will coordinate with the APIRG related regional project (COM Project 4), the development of a regional template for cyber security guide and cyber threat assessment in order to ensure that the AFISNET Cyber security implementation is aligned with the AFI regional related policy.

Agenda Item 3: Review of the projects on interconnection and interoperability of systems (AMHS, AIDC)

Under this agenda item, the meeting was provided (**PPT04**) with the review of the projects on interconnection and interoperability of systems (AMHS, AIDC). The meeting noted the challenges encountered in the leadership of APIRG COM Project 2 Management as well as the usage of AFTN Gateways for interconnection instead of full AMHS interconnection and the lack of update of Letters of Agreements (LoAs) to include planning and procedures for AMHS & AIDC implementation.

GCAA reported (**WP04**) the successful implementation of AIDC between Accra's and Abidjan's ATM systems. GCAA indicated to be currently going through a similar process with ASECNA to officially implement AIDC between Accra and Lomé's ATM Systems. The implementation currently at the pre-operational phase is expected to be fully operational by 31st November 2022 according to the roadmap of implementation.

The meeting assessed the status of implementation of the Phase I of the AFISNET modernization and urged NAMA to expedite the upgrade of the base band equipment of its concerned nodes in order to enable the effective and efficient implementation of AMHS between AFISNET stations.

The following recommendation was formulated:

Recommendation Coord.2022/3: *Upgrade of the AFISNET Base Band equipment in support to AMHS implementation*

That;

In order to enable the effective and efficient implementation of AMHS between AFISNET stations, NAMA expedite the upgrade of the base band equipment of its concerned nodes not later than 31 October 2022 and inform ASECNA and GCAA for further coordination.

Furthermore, ASECNA provided (**WP/06**) the meeting with the status of implementation of AMHS in its centers.

It was noted that many circuits are switched to TCP/IP and the remaining circuits are either in progress, or not started. The main challenge encountered is the need to upgrade the bandwidth to support the implementation of AMHS. The meeting tasked ASECNA to coordinate an online meeting between AFISNET Core members and INTELSAT with the aim to discuss and agree on the modalities of assignment of new frequencies or the adequate upgrade of existing carriers.

The following Recommendation was formulated:

Recommendation Coord.2022/4: *Provision of adequate satellite spectrum and frequencies for AMHS supporting links*

That;

In order to ensure an adequate provision of satellite spectrum and frequencies for AMHS supporting links, ASECNA coordinate an online meeting between AFISNET Core members and INTELSAT to be held not later than 31 December 2022 with the aim to discuss and agree on the modalities of assignment of new frequencies or the adequate upgrade of existing carriers.

Agenda Item 4: Relaunch of the Surveillance Data sharing Project

Under this agenda item the meeting discussed the status of implementation of the the Surveillance Data sharing Project.

ASECNA wondered whether the project was still relevant or should be cancelled. The meeting considering the facilities already purchased and the training provide to technical experts, agreed to continue the implementation of the project.

In this regard, it was decided to convene the training in the ASECNA Training center of EAMAC (Niamey, Niger) for the second technical team and provide an online refresher training for the first team already trained. However, NAMA decided to fund the training of his first team for an in-person training.

Furthermore, the meeting discussed the issue on satellite spectrum for the surveillance data sharing and urged members to confirm to ASECNA, the spectrum requirements identified in the revised Roadmap for the implementation of the Project for inclusion in the agenda of the online meeting with INTELSAT. A face-to-face meeting with INTELSAT was called upon during the first quarter of year 2023 to be hosted by NAMA back-to-back with the SNMC/28th meeting.

The following recommendation was formulated:

Recommendation Coord.2022/5: *Spectrum requirements for ground-based surveillance data sharing*

That;

In order to pursue and expedite implementation of Surveillance Data sharing:

a) **ANSPs confirm to ASECNA, not later than 15 September 2022, the spectrum requirements identified in the revised Roadmap for the implementation of the Project.**

b) **ASECNA include these requirements in the agenda of the online meeting called upon by Recommendation Coord.2022/4 and organize a face-to-face meeting with INTELSAT hosted by NAMA during the first quarter of year 2023.**

Agenda Item 5: Memorandum of Cooperation (MoC) and AFISNET modernization and re-engineering

Under this agenda item the meeting was provided (**WP/05**) with the summary of the provision of the Memorandum of Cooperation (MoC) signed by the AFISNET Board in Dakar on 06 April 2018 with focus on the AFISNET modernization and re-engineering.

The meeting noted that from it Annex 2-*Agreement for the exchange of ATS Messages* to Annex 8-*Agreement for the aeronautical information Data exchange*, the MoC has identified the way for future achievement of interoperability of systems as well as the modernization of the Network.Unfortunately, the COVID-19 Pandemic has adversely impacted the effective implementation of the MoC.

This post COVID-19 restart environment should give opportunity to revamp the various cooperation activities identified and need the continuous support from the AFISNET Board. It was agreed to make proposal for an AFISNET Board periodic coordination meeting to ascertain the effective implementation of the deliberation of its directives.

The following Recommendation was formulated:

Recommendation Coord.2022/6: *Establishment of a periodicity for the Board meeting*

That;

In order to ascertain the effective implementation of the deliberation of its coordination meetings, the AFISNET Board set up a periodicity of the coordination meeting to review and up-date if necessary, the activities identified in the MoC by the experts and agree on any other further actions thereon.

Agenda Item 6: Briefing on global and regional technical evolutions with impact on AFISNET

Under this agenda item the meeting was provided (**PPT05**) with a summary on Global and regional technical evolutions with impact on AFISNET.

The meeting in consideration of the severe impact of the COVID-19 Pandemic on the air transport, the need for a robust resilient restart, the future growth of the Aviation industry, the complexity of the ATM system and the technology changes and trends agreed that AFISNET future project should take into consideration potential new requirements such as but not limited to:

- UAS & RPAS: Unmanned aircraft systems Traffic Management (UTM);

- Stratospheric Operations;

- Balloons operation;

In this regard, the meeting agreed that Innovation is a key enabler and can be usefully used by SNMC members while re-engineering the network with focus but not limited to:

- Digitalization in Aviation;

- Artificial Intelligence (AI) in aviation;

- Research and Development;

- Cyber Security and Resilience of the ANS system;

Agenda Item7: Any other business

Under this agenda item, the meeting discussed the future work programme of SNMC. It was agreed that NAMA would confirm his availability to host the 28th meeting of the SNMC and notify to the Secretariat.

The table summarizing the recommendation of the meeting is presented in **Appendix B**.